

REMARKS

Applicants respectfully request an extension of time for responding to the Office Action.

Filed herewith is a Request for Extension of Time Pursuant to 37 CFR 1.136a.

Claims 1-15 are pending in the application, claims 10-15 having been added in this amendment.

Claims 1-9 stand subject to a restriction requirement. Claims 1-9 also stand rejected under 35 USC 112 first and second paragraphs. Claims 1-3 stand rejected under 35 USC 102(b) or 103.

In addition, the Specification stands "objected to" as informal.

Consideration of claims 1-15 is respectfully requested in view of the foregoing amendments and the following comments.

The Specification

Attached hereto, in response to the Notice of Informal Application mailed with the Office Action, is a substitute copy of the original Specification which corrects the mis-numbering of pages 23 et. seq.

Election

In response to the restriction requirement Applicants elect scandium (processes for selectively extracting scandium metal values) as the species for prosecution on the merits in the present application.

New claims 10-15 are directed to the elected species. Claims 1-9 are believed to be generic. Upon allowance of a generic claim, Applicants may wish to add additional claims directed to the unelected species.

Claims 1-9 -- 35 USC 112

The rejection of claims 1-9 under 35 USC 112, first and second paragraphs, is respectfully traversed.

Applicants respectfully disagree with the Examiner's positions with respect to the 35 USC 112, however, in order to expedite prosecution of the application, Applicants have amended claims 1-5, 8 and 9 in view of the Examiner's comments on pages 2 and 3 of the Office Action. The amendments to claims 1-5, 8 and 9 are made to address 35 USC 112 issues only, and not made in response to the prior art rejections.

Applicants respectfully submit that the present claims are readily understandable to one of ordinary skill in the art, and not unduly broad or indefinite. In this regard, Applicants note that an application need not include information which is known and readily available to those of ordinary skill in the art. Further, based on the description and examples in the present Specification, which according to the Examiner's position include multiple species, one of ordinary skill in the art is enabled to practice the processes of the present invention to recover a

broad range of metal values from a source material without the need for undue experimentation.

Thus, contrary to the Examiner's position, claim 1 is not unduly broad.

Claim 2 has been amended to provide antecedent basis for the metal values set forth in line 5. However, Applicants respectfully submit that antecedent basis for "the undissolved material" may be found in the prior reaction steps. Contrary to the Examiner position, the claim as written, does not contemplate dissolution of all of the source material through the reaction with a mineral acid.

Claim 8 has also been amended to provide antecedent basis for the metal values recited in the process steps set forth in the claim.

For these reasons, the Examiner is respectfully requested to withdraw the rejection of claims 1-9 under 35 USC 112, first and second paragraphs.

Claims 1-3 -- 35 USC 102(b) or 103

The rejection of claims 1-3 under 35 USC 102(b) as anticipated by, or, in the alternative, as obvious over each of Bielecki et al. (US Patent No. 5,023,059) and Floeter et al. (US Patent No. 4,451,438) is respectfully traversed.

Claims 1-3 are directed to processes for selectively extracting a solulizable metal value from a source material to provide products comprising the extracted metal value. For example, a process of claim 1 may be utilized to selectively extract a scandium metal value from a source material may be utilized to produce a scandium hydroxide product which may be further processed and/or sold. One example of a source material for a process of the present invention is an ore residue produced by the commercial processing of ores and slags, although the process

extends to other source materials. Such a source material may comprise concentrated levels metal values, including radioactive metal values, not extracted in the commercial processing steps. For example, a source material comprising an ore residue from the processing of a mineral ore comprising tantalum and niobium may have concentrated levels of uranium, zirconium, thorium and scandium metal values, and at least partially depleted levels of tantalum and niobium metal values in comparison to the original ore.

Bielecki et al. discloses processes for recovering columbium, tantalum, thorium and uranium from source solids. In the processes disclosed in Bielecki et al., fluorine values are added to the source material in a first process step wherein a source material is digested in concentrated hydrofluoric acid. In contrast, the processes of present claims 1-3 include a step of separating and removing fluorine values. Thus, the processes of present claims 1-3 clearly differ from the processes disclosed in Bielecki et al., and the disclosure of Bielecki et al. teaches directly away from the present claims. Further, the processes of claims 1-3 are advantageous for recovering additional solubilizable metal values not recovered by the original processing of the ore. For example, with respect to the elected species, the processes of claims 1-3 may be utilized to recover scandium metal values from an ore residue produced from the processing of an ore to recover tantalum and/or niobium metal values. In addition, the processes of claims 1-3 may be utilized to selectively extract a solubilizable metal value such as a scandium metal value. Thus, the processes disclosed in Bielecki et al. differ from, and fail to anticipate, teach or suggest the processes of claims 1-3.

Floeter et al. disclose a process for recovering non-radioactive transition metal compounds (i.e. tantalum and niobium) from ores. The first step of the processes disclosed in

Floeter et al. involves digesting the ore in hydrofluoric acid, which will add fluorine values to the ore. As set forth above with respect to Bielecki et al., the processes of the present claim are patentably distinct in that fluorine values are separated and removed from a source material in the processes of present claims 1-3. Further, with respect to the elected species, Applicants note that Floeter et al. lacks any disclosure, teaching or suggestion relating to selectively extracting scandium from a source material. Therefore, Floeter et al. also fails to disclose or suggest the processes of claims 1-3.

For all of these reasons the Examiner is respectfully requested to withdraw the rejection of claims 1-3 under 35 USC 102(b) or 103.

New Claims 10-15

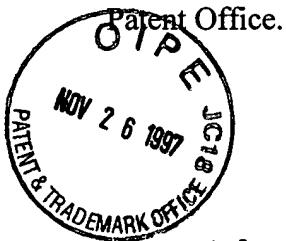
Applicants have added new claims 10-15 to provide additional claim coverage for processes of the present invention. Support for new claims 10-15 may be found in original claims 1-9, and on pages 3-14 of the present Specification.

Applicants respectfully submit that new claims 10-15 are allowable over the cited references for the reasons set forth above with respect to claims 1-3.

Information Disclosure Statement

An additional Information Disclosure Statement, including information cited in a communication from a foreign patent office in a counterpart foreign application, was filed on September 3, 1997. The Examiner is respectfully requested to consider the information included with the Information Disclosure Statement, initial the included Form PTO 1449 and return the

initialed Form PTO 1449 to Applicants' attorney with the next piece of correspondence from the



Conclusion

A favorable Office Action is respectfully solicited. The Examiner is respectfully invited to contact the undersigned at (910) 607-7315, to discuss any matter relating to this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. W. Calkins".

Charles W. Calkins  
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Encl.: Substitute Specification

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